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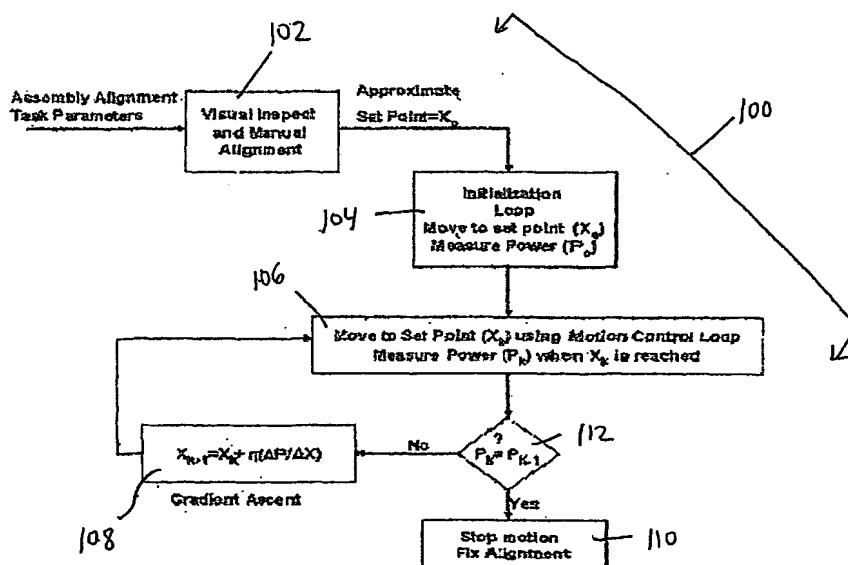
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(54) Title: INTELLIGENT MODELING AND CONTROL OF AUTOMATION



(57) Abstract: A system and method for advanced device specific knowledge based modeling as well as intelligent control to yield high performance, low cost automation for optoelectronic design, packaging and assembly. The control loop design is based on knowledge based model predictive control. A knowledge model, specific to the assembled package's characteristics, is used to set the initial "feed-forward" conditions of an automation system. In addition to this feed-forward model for setting the initial set point, the controller is designed with feedback components, along with the inclusion of a built in sensor. This system and method increases the efficiency of the automation process and the number of assembly steps can be greatly reduced. A method for the design, assembly and packaging of optoelectronic devices is also described.



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